

Each participant can be expected to produce savings of approximately 10,402 gallons of water, 46 therms of natural gas, and 230 kWh of electricity. The high quality products are able to generate savings for up to 10 years or more!

Kit Items (Product Life)	<u>Electricity</u> projected savings		<u>Gas</u> projected savings		<u>Water</u> projected savings	
	Year 1	Year 10	Year 1	Year 10	Year 1	Year 10
2.0 gpm Showerhead (10 yrs)	194	1945	40	400	8,760	87,600
2.0 gpm Faucet Aerator (5 yrs)	24	120	5	25	1,095	5,475
1.0 gpm Faucet Aerator (5 yrs)	12	60	1	10	547	2,735

TOTAL SAVINGS

230 2,125
kilowatt hours

46 435
therms

10,402 95,810
gallons

Cost/Benefit

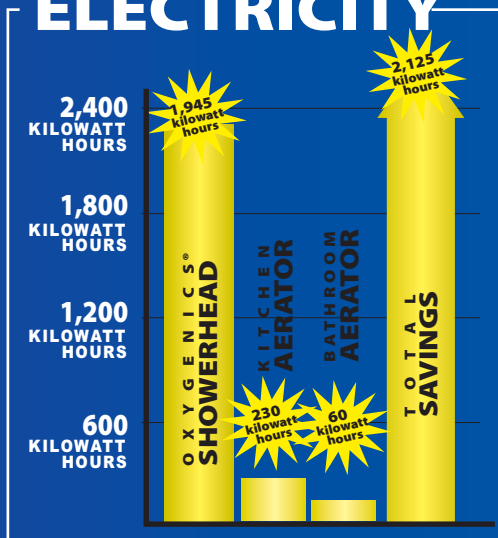
(\$30 program cost)

\$.01
per kWh

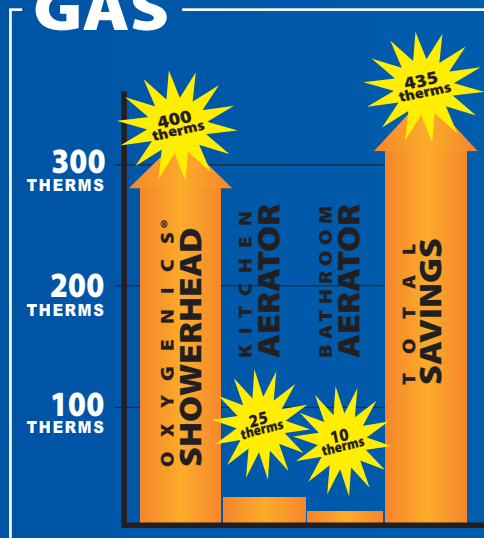
\$.09
per therm

\$.02
per ccf

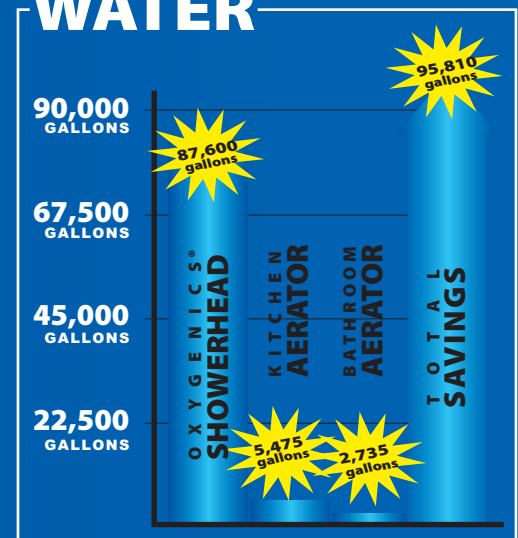
ELECTRICITY



GAS



WATER



* Based on US Census Information, 2002. <http://www.census.gov/population/www/socdemo/hh-fam/cps2002.html>

† Appliance efficiency and percentage of use by region based on individual report on the LivingWise Resource Action Program commissioned by Southern California Water Corporation Submitted August 31, 2001

Calculation Summary

showerhead

WATER

$2 \text{ gpm flow reduction} \times 8 \text{ min shower} \times 2.5^* \text{ residents} \times 365 \text{ days} \times 0.6 (\% \text{ installation}) = 8,760 \text{ gal year } 1) \times 10 \text{ years} = 87,600 \text{ gallons of water (and wastewater) per household}$

GAS (80% of region water heat †)

$8,760 \text{ gal} \times 0.7 (\% \text{ hot}) \times 8.33 \text{ lbs/gal} \times 65^\circ \text{ F (temp rise)} \div 0.65 (\% \text{ boiler efficiency}) \times 0.8 (\% \text{ gas market share}) = 4,086,364.8 \text{ Btu} \div 100,000 \text{ Btu/therms} = 40 \text{ therms (year 1)} \times 10 = 400 \text{ therms}$

ELECTRICITY (20% of region water heat †)

$8,760 \text{ gal} \times .7 (\% \text{ hot}) \times 8.33 \text{ Btu/gal} \times 65^\circ \text{ F (temp rise)} \times 0.2 (\% \text{ marketshare}) \div 3,413 \text{ Btu/kWh} = 194.5 \text{ kWh (year 1)} \times 10 \text{ years} = 1,945 \text{ kWh}$

kitchen faucet aerator

WATER

$2 \text{ gpm flow reduction} \times 2.5 \text{ min use/day} \times 365 \text{ days} \times 0.6 (\% \text{ installation}) = 1,095 \text{ gal (year 1)} \times 5 \text{ years} = 5,475 \text{ gallons}$

GAS (80% of region water heat †)

$1,095 \text{ gal} \times .7 (\% \text{ hot}) \times 8.33 \text{ lbs/gal} \times 65^\circ \text{ F (temp rise)} \div 0.65 (\% \text{ boiler efficiency}) \times 0.8 (\% \text{ market share}) = 510,795 \text{ Btu} \div 100,000 \text{ Btu/therms} = 5.1 \text{ therms (year 1)} \times 5 \text{ years} = 25 \text{ therms}$

ELECTRICITY (20% of region water heat †)

$1,095 \text{ gal} \times 0.7 (\% \text{ hot}) \times 8.33 \text{ lbs/gal} \times 65^\circ \text{ F (temp rise)} \times 0.2 (\% \text{ market share}) \div 3,413 \text{ Btu/kWh} = 24.3 \text{ kWh (year)} \times 5 \text{ years} = 120 \text{ kWh}$

Bathroom faucet aerator

WATER

$1 \text{ gpm flow reduction} \times 2.5 \text{ min use/day} \times 365 \text{ days} \times 0.6 (\% \text{ installation}) = 547.5 \text{ gal (year 1)} \times 5 \text{ years} = 2,737 \text{ gallons}$

GAS (80% of region water heat †)

$547 \text{ gal} \times 0.7 (\% \text{ hot}) \times 8.33 \text{ lbs/gal} \times 65^\circ \text{ F (temp rise)} \div 0.65 (\% \text{ boiler efficiency}) \times 0.8 (\% \text{ market share}) = 255,165 \text{ Btu} \div 100,000 \text{ Btu/therms} = 2.5 \text{ therms (year 1)} \times 5 \text{ years} = 13 \text{ therms}$

ELECTRICITY (20% of region water heat †)

$547 \text{ gal} \times 0.7 (\% \text{ hot}) \times 8.33 \text{ lbs/gal} \times 65^\circ \text{ F temp rise} \times 0.20 (\% \text{ market share}) \times 3,413 \text{ Btu/kWh} = 12 \text{ kWh (year)} \times 5 \text{ years} = 60 \text{ kWh}$



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